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NATIONAL RECOVERY ADMINISTRATION

DIVISION OF REVIEW

EVIDENCE STUDY

NO. 39

OF

THE THROWING INDUSTRY

Prepared by

W. A. GILL

August, 1935

PRELIMINARY DRAFT

(NOT FOR RELEASE: FOR USE IN DIVISION ONLY)

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THE EVIDENCE STUDY SERIES

The EVIDENCE STUDIES were originally planned as a means of gathering evidence bearing upon various legal issues which arose under the National Industrial Recovery Act.

These studies have value quite aside from the use for which they were originally intended. Accordingly, they are now made available for confidential use within the Division of Review, and for inclusion in Code Histories.

The full list of the Evidence Studies is as follows:

- | | |
|-------------------------------------|---|
| 1. Automobile Manufacturing Ind. | 33. Mason Contractors Industry |
| 2. Boot and Shoe Mfg. Ind. | 34. Men's Clothing Industry |
| 3. Bottled Soft Drink Ind. | 35. Motion Picture Industry |
| 4. Builders' Supplies Ind. | 36. Motor Bus Mfg. Industry (Dropped) |
| 5. Chemical Mfr. Ind. | 37. Needlework Ind. of Puerto Rico |
| 6. Cigar Mfr. Industry | 38. Painting & Paperhanging & Decorating |
| 7. Construction Industry | 39. Photo Engraving Industry |
| 8. Cotton Garment Industry | 40. Plumbing Contracting Industry |
| 9. Dress Mfg. Ind. | 41. Retail Food (See No. 42) |
| 10. Electrical Contracting Ind. | 42. Retail Lumber Industry |
| 11. Electrical Mfg. Ind. | 43. Retail Solid Fuel (Dropped) |
| 12. Fab. Metal Prod. Mfr., etc. | 44. Retail Trade Industry |
| 13. Fishery Industry | 45. Rubber Mfg. Ind. |
| 14. Furniture Mfr. Ind. | 46. Rubber Tire Mfg. Ind. |
| 15. General Contractors Ind. | 47. Silk Textile Ind. |
| 16. Graphic Arts Ind. | 48. Structural Clay Products Ind. |
| 17. Gray Iron Foundry Ind. | 49. Throwing Industry |
| 18. Hosiery Ind. | 50. Trucking Industry |
| 19. Infant's & Children's Wear Ind. | 51. Waste Materials Ind. |
| 20. Iron and Steel Ind. | 52. Wholesale & Retail Food Ind. (See No. 31) |
| 21. Leather | 53. Wholesale Fresh Fruit & Veg. |
| 22. Lumber & Timber Prod. Ind. | |

In addition to the studies brought to completion, certain materials have been assembled for other industries. These MATERIALS are included in the series and are also made available for confidential use within the Division of Review and for inclusion in Code Histories, as follows:

- | | |
|------------------------------------|---|
| 44. Wool Textile Industry | 49. Household Goods & Storage, etc. (Dropped) |
| 45. Automotive Parts & Equip. Ind. | 50. Motor Vehicle Retailing Trade Ind. |
| 46. Baking Industry | 51. Retail Tire & Battery Trade Ind. |
| 47. Canning Industry | 52. Ship & Boat Bldg. & Repairing Ind. |
| 48. Coat and Suit Ind. | 53. Wholesaling or Distributing Trade |

L. C. Marshall
Director, Division of Review

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THE THROWING INDUSTRY

Foreword

Published government data regarding the Throwing Industry, as such, are extremely meagre. This is due to the fact that the various government bureaus have considered it an integral part of the Silk Industry.

The Bureau of the Census has gathered data relating to the volume and value of silk and rayon thrown on commission and silk thrown for sale, and these data are presented in this report. Special Bureau of Labor Statistics tabulations covering labor conditions in the Industry as defined by the Code, for the years 1933 and 1934, are presented in Chapter II.

Various data submitted in this report - particularly that gathered by the Federal Trade Commission - cover only the commission throwing part of the Industry. In the absence of more comprehensive data, it was considered advisable to present this, however, particularly since it has been estimated that approximately 60 per cent of all throwing is done on commission.

Much of the information called for could be obtained only from the records of the Code Administration Committee, and in such cases these have consequently been used.

CHAPTER I

DESCRIPTION AND SCOPE

Code Definition

The Throwing Industry includes "All plants of throwing machinery within the United States whether owned or operated by commission throwsters or by those throwing material for sale or for their own use and made of silk, rayon, or acetate yarns."

Due to an overlapping in the definitions of the Throwing and Cotton Textile Codes those manufacturers throwing rayon in cotton textile plants have refused to come under the Throwing Code and have continued to operate and report under that of the Cotton Textile Industry. The data from the Code Administration Committee records, therefore, exclude these manufacturers.

History

The growth of the Throwing Industry in this country directly parallels that of its parent, the Silk Industry. The Silk Industry began to assume significant proportions in the seventies, and has grown rapidly since then. In 1871 about 1,000,000 pounds of raw silk were imported, while in 1929 over 87,000,000 pounds were imported. Since that year there has been a decline in the Silk Industry with resulting decline in throwing.

The only noteworthy recent development in the Industry has been the increase in the throwing of rayon. Rayon was first developed as a practical textile fibre in France in 1884 by Count Heloise de Charbonnet and was known at that time as artificial silk. It was not until about 1918 that it began to assume real commercial significance and after the war the Industry accelerated rapidly. ^{1/} About 1923 the Cotton Textile Industry was suffering from the post-war depression and began experimenting with rayon as a way out. By 1927 a definite rayon weaving section had developed in the Cotton Textile Industry. The Silk Industry subsequently followed the lead of the Cotton Textile Industry in the use of rayon which was oftentimes mixed with silk in weaving, and rayon therefore became increasingly important in that Industry.

Description of the Industry

Silk yarns that are used in the manufacture of woven and knitted fabrics must be twisted into the size or description desired. This twisting is known as throwing. Throwing is done on a commission basis by commission throwsters who do not own the raw material but merely process it for other manufacturers. Throwing is also done as an integral part of the business by many textile plants which later weave or knit the product into cloth or other fabrics. Silk and rayon are also thrown by companies who buy the raw silk, process and sell it to the knitters and weavers.

^{1/} W. D. Darby, Rayon and Other Synthetic Fibres (1929).

Number of Concerns and Establishments

According to the Code Administration Committee records there were 285 concerns operating 343 establishments in the Throwing Industry in 1934.

Geographical Distribution of Establishments

As shown in Table I, these establishments were distributed among 23 states with the highest concentration of 199 establishments in Pennsylvania. Other important states are New Jersey, New York, and North Carolina, with 44, 23, and 19 plants, respectively.

TABLE I

Number of Establishments, by Principal States
1934

State	Number of Establishments
U. S. Total	343
Connecticut	9
Maryland	4
Massachusetts	11
New Jersey	44
New York	23
North Carolina	19
Pennsylvania	199
Rhode Island	7
Tennessee	7
Virginia	4
Other States <u>a/</u>	16

Source: Code Administration Committee records

a/ Alabama, 1 establishment; California, 1; Georgia 2; Illinois, 2; Indiana, 1; Iowa, 1; Kentucky, 1; Louisiana, 1; Maine, 1; Michigan, 1; Minnesota, 1; West Virginia, 2; Wisconsin, 1.

Size of Concerns

Most of the concerns in the Industry are small in size. Code Administration Committee records show that more than two-thirds of the members of the Industry (192) have less than 10,000 spindles, and only two have more than 100,000 spindles.

TABLE II

Concerns in the Industry Classified According to
Number of Twisting Spindles, 1934

Number of Spindles	Number of Concerns	Per Cent of Total
Total	285	100.0
Under 10,000 spindles	192	67.4
From 10,000 to 25,000 spindles	58	20.3
From 25,000 to 100,000 spindles	33	11.6
Over 100,000 spindles	2	.7

Source: Code Administration Committee records.

Not only are concerns small in size but a large majority of them operate only one plant. Table III shows that of 271 concerns in the Industry, 230 operate one plant, 23 firms operate two plants, and only one operates 10 plants.

TABLE III

271 Concerns in the Industry Classified According to
Number of Plants, 1934

Number of Plants	Number of Concerns
Total	271
One Plant only	230
Two plants	23
Three plants	11
Four plants	6
Ten plants	1

Source: Code Administration Committee records.

Capital Investment

Reliable figures on total capital investment in the Throwing Industry are not available. In its application for a Code, the Industry estimated the total capital investment in 1933 at \$97,000,000. It appears, however, that this estimate is considerably too high. The Federal Trade Commission in its Textile Report, Part IV, Silk and Rayon Industry, found 54 companies with 1,037,738 spindles, engaged in both stock and commission throwing, to have an investment of \$15,633,061 for the period January to June 1934. Since the total spindles in the Industry in 1934 amounted to 3,641,846, according to the Code Administration Committee records, the Federal Trade Commission

sample covered more than a quarter of the Industry. The above estimate of total capital investment must therefore be much too large, if the remainder of the Industry has the same proportionate value per spindle as those companies studied by the Commission.

According to the above-mentioned report, 43 concerns engaged exclusively in commission throwing had a capital investment of \$12,203,934 for the first half of 1934.

Return on Investment

In view of the fact that commission throwsters do not own the materials they process their profits represent only the difference between the commissions they receive and the cost of labor plus other manufacturing costs. Profits or losses, therefore, tend to be small since opportunities to gain or lose through changes in inventory values do not exist. Table IV shows the rate of return in 43 commission-throwing concerns which comprised the representative sample recently studied by the Federal Trade Commission.

TABLE IV

Rates of Return for 43 Commission Throwsters
for Specified Periods a/

Item	January June 1933	July- December 1933	January- June 1934
On textile investment <u>b/</u>	3.33	0.48	1.97
On total capital stock equity in textile business <u>c/</u>	2.84	0.81 <u>d/</u>	1.77
On total investment <u>e/</u>	3.25	0.60	2.01

Source: Federal Trade Commission, Textile Report, Part IV, Silk and Rayon Industry.

a/ Computed on annual basis (excluding good will from investment).

b/ Total income from the textile business before payment of interest and Federal taxes, based on total investment less good will and outside investment.

c/ Total net income, before payment of Federal taxes, less income from outside investment based on total investment less good will, outside investments, and borrowed money.

d/ Loss.

e/ Total income from all sources before payment of Federal taxes and interest. Based on total investment, less good will.

As shown in Table V, net sales of about \$4,300,000 were required to bring a net profit of \$198,167 in the first half of 1933. Slightly larger sales in the second half of that year resulted in a net profit of only \$15,235. The first half of 1934 shows some improvement with similar sales returning \$97,619.

TABLE V

Total Cost of Goods Sold, Net Sales, and Net Profit on Sales of 43 Commission Throwsters, January 1933 - June 1934

Six-Month	Total Cost of Goods Sold	Net Sales	Net Profits on Sales
January-June, 1933	\$3,614,230	\$3,812,397	\$198,167
July-December, 1933	4,002,975	4,018,210	15,235
January-June, 1934	3,900,062	3,997,681	97,619

Source: Federal Trade Commission, Textile Report, Part IV, Silk and Rayon Industry.

Failures

Published data on the number of failures or the liabilities involved in failures in the Throwing Industry over a period of years are not available. Table VI presents estimates of failures according to the best knowledge of Mr. Kelly of the Code Administration Committee. According to this estimate, the number of failures remained practically constant at two or three per year for the years 1929, 1931, and 1933, but increased to nine for the year 1934. It should be noted, however, that Dun and Bradstreet report no failures under this Code for 1934.

TABLE VI

Estimated Number of Failures

Year	Number of Failures
1929	2
1931	3
1933	2
1934	9

Source: Mr. Kelly, Code Administration Committee.

Productive Capacity

Table VII shows estimates prepared by the Code Administration Committee regarding available productive capacity. From this table it is seen that the available machine hours are almost three times the actual hours operated in 1934.

TABLE VII

Estimated Productive Capacity and Capacity Utilized, 1934

Items	Amount
Number of actual spindles	3,641,846
Capacity machine hours of operation	20,467,993,100 <u>a/</u>
Actual machine hours of operation	7,546,516,339 <u>b/</u>

Source: Estimates of the Code Administration Committee

- a/ Estimated by multiplying number of twisting machines by 121 hours per week; 5 B. machines by 80 hours per week.
- b/ Based upon sample representing 89 per cent of the Industry covered by the Code.

CHAPTER II
LABOR STATISTICS

Number of Employees

According to records of the Code Administration Committee, there were 32,893 employees in the Throwing Industry in 1934. Pennsylvania was the most important state, 21,408 persons - or about 65 per cent of the total - being employed there. Other important states with over 1,000 employees each were Massachusetts, New Jersey, North Carolina, New York, and Virginia. Table VIII shows the average number employed in each state in 1934.

TABLE VIII
Average Number of Employees,
by Principal States, 1934 a/

State	Average Number of Employees
U. S. Total	32,893
Connecticut	892
Illinois	966
Massachusetts	1,604
New Jersey	1,243
New York	2,119
North Carolina	1,471
Pennsylvania	21,408
Rhode Island	505
Tennessee	603
Virginia	1,051
Other States	1,031

Source: Code Administration Committee reports.

a/ As of December 29, 1934, for two-week period;
reported by about 93 per cent of the total
spindles operating with the Industry operating
at 50 per cent of capacity at that time.

According to a special tabulation, shown in Table IX, made by the Bureau of Labor Statistics in cooperation with the Division of Research and Planning, NRA, employment in 1934 was about 2 per cent less than in 1933; man-hours dropped nearly 16 per cent while payrolls increased by about 12 per cent. The decrease in man-hours is due largely to the decrease in number of hours worked per week, as shown in Table IX.

Wages

No information is available on total annual wages in this Industry. Furthermore, because of the seasonal nature of the Industry it would be

difficult to make a reliable estimate. Table X shows that total wages for a two-week period in December 1934 amounted to \$692,628. This table also shows total wages by principal producing states for the same period. About two-thirds of the total wages paid during this period - or \$470,399 - were paid in Pennsylvania. The second most important state as to total wage payments was New York with a total payroll of only \$35,107 for the two-week period. This amount is less than 5 per cent of the total payroll for the industry for this period.

The trend in payrolls has been upward in 1934, as shown in Table IX.

TABLE IX
Index of Employment, Payrolls and Man-Hours
1933 and 1934 a/
(1933 = 100)

Year and Month <u>b/</u>	Employment <u>c/</u>	Payrolls <u>c/</u>	Man-Hours <u>d/</u>
1933			
January	94.5	83.6	108.2
February	99.0	93.8	113.3
March	81.8	70.2	85.3
April	87.9	77.9	93.3
May	91.1	88.8	104.0
June	93.3	91.2	103.6
July	111.2	109.7	124.4
August	116.6	125.8	103.5
September	108.2	114.3	90.7
October	109.7	125.3	100.4
November	108.2	121.0	96.3
December	98.7	98.4	77.2
Average	100.0	100.0	100.0
1934			
January	93.0	97.1	74.8
February	119.1	143.8	110.7
March	112.7	130.3	98.2
April	105.6	115.9	85.6
May	90.1	100.5	74.8
June	93.6	102.0	74.4
July	95.6	104.0	76.9
August	96.4	113.4	83.1
September	82.6	85.2	61.0
October	95.8	118.9	85.4
November	94.3	116.6	85.3
December	96.7	118.3	85.0
Average	98.0	112.2	82.9

(Continued on following page)

TABLE IX
(Cont'd)

Source: Unpublished data secured by the Bureau of Labor Statistics in cooperation with the Division of Research and Planning, NRA.

- a/ Reporting establishments considered to be almost completely covered by the Throwing Code.
- b/ Figures reported were for payroll period nearest the 15th of the month.
- c/ Based on a representative sample covering an average of nearly 50 establishments and 10,500 employees.
- d/ Computed: Index of employment times average hours per week reduced to 1933=100.

TABLE X

Total Wages for a Two-Week Period,
by Principal States, 1934 a/

State	Wages Paid to Employees
U. S. Total	\$692, 628
Connecticut	12,786
Illinois	28,548
Massachusetts	23,312
New Jersey	32,334
New York	35,107
North Carolina	28,756
Pennsylvania	470,399
Virginia	19,201
Other States	42,185

Source: Code Administration Committee reports.

- a/ For two-week period as of December 29, 1934; 93 per cent of spindles reporting, with the industry operating at 50 per cent of capacity at that time.

Average Hourly Wage Rate

No published data are available on the average hourly wage rate in the industry prior to 1933. Mr. Dean Hill, who has been associated with the Textile Industry for many years, has estimated that it was about 27.5 cents per hour in 1929. According to Code Administration Committee records, the average hourly rate in 1934 was 37.2 cents per hour, and average weekly earnings were \$12 per week.

A special tabulation made by the Bureau of Labor Statistics in co-operation with the Division of Research and Planning, NRA, shows the average hourly wage to have been 23.6 cents in 1933 and 37.4 cents in 1934. Average weekly wages increased from \$10.41 in 1933 to \$11.59 in 1934, while average hours per week decreased from 36.5 in 1933 to 30.6 hours in 1934. Table XI shows the average hourly wage rate, average weekly wage, and average hours per week by months as well as the annual average for the years 1933 and 1934.

TABLE XI
Average Hourly Wage Rate, Average Weekly Wages
and Average Hours Per Week, by Months
1933 and 1934 a/

Year and Month <u>b/</u>	Average Hourly Wage Rate <u>c/</u> (cents)	Average Weekly Wages <u>d/</u> (dollars)	Average Hours Per Week <u>e/</u>
1933			
January	21.8	9.26	41.5
February	23.6	9.93	41.5
March	23.6	9.00	37.8
April	23.8	9.29	38.5
May	24.0	10.28	41.4
June	24.4	10.26	40.3
July	24.5	10.35	40.6
August	33.9	11.32	32.2
September	35.5	11.08	30.4
October	35.0	11.99	33.2
November	36.0	11.72	32.3
December	36.5	10.44	28.4
Average	28.6	10.41	36.5
1934			
January	36.7	10.98	29.2
February	36.7	12.49	33.7
March	36.6	11.78	31.6
April	37.2	11.17	29.4
May	36.9	11.40	30.1
June	37.9	11.13	28.8
July	37.0	11.08	29.2
August	37.5	11.93	31.3
September	38.6	10.27	26.8
October	37.8	12.35	32.3
November	37.7	12.29	32.8
December	37.6	12.16	31.9
Average	37.4	11.59	30.6

Source: Unpublished data secured by the Bureau of Labor Statistics in cooperation with the Division of Research and Planning, NRA.

(Continued on following page)

TABLE XI
(Cont'd)

- a/ Reporting establishments considered to be almost completely covered by the Throwing Code.
- b/ Figures reported were for payroll period nearest the 15th of the month.
- c/ Based on a representative sample covering an average of 33 establishments and about 8,600 employees in 1933 and a somewhat larger portion of the Industry in 1934.
- d/ Based on a representative sample covering an average of nearly 50 establishments and 10,500 employees.

Labor Cost Compared with Total Manufacturing Cost

Since commission throwing constitutes a service industry it is to be expected that labor cost will be relatively high. Table XII shows that cost of labor in commission throwing plants represents about two-thirds of the total cost of manufacturing.

TABLE XII

Per Cent Labor Cost is of Total Manufacturing Cost
of 43 Commission Throwsters
January 1933 - June 1934

Six-Month Period	Total Manufacturing Cost	Cost of Labor	
		Amount	Per Cent of Total
January-June, 1933	\$3,161,187	\$1,975,910	62.1
July-December, 1933	3,565,916	2,381,840	66.8
January-June, 1934	3,457,978	2,360,829	68.3

Source: Federal Trade Commission, Textile Report, Part IV, Silk and Rayon Industry.

Labor and Material Cost as Percentage of Net Sales

Table XIII, compiled from the Federal Trade Commission's Textile report, shows that in the commission throwing concerns studied by it, total labor cost amounted to 51.8 per cent of net sales in the first half of 1933, and 59.1 per cent for the first half of 1934. Thus, the relative labor cost was increased almost 14 per cent under the Code. Over the same period relative material costs doubled, the percentage increasing from .8 to 1.16 per cent of net sales.

TABLE XIII

Per Cent Labor Cost and Material Cost are of Net Sales
of 43 Commission Throwsters
January-June 1933, January-June 1934

Six-Month Period	Per Cent Labor Cost is of Net Sales	Per Cent Material Cost is of Net Sales
January-June, 1933	51.8	.8
January-June, 1934	59.1	1.6

Source: Federal Trade Commission, Textile Report, Part IV,
Silk and Rayon Industry.

CHAPTER III

RAW MATERIALS

Cost of Raw Materials

Readily available data on this subject pertain to the commission-throwing part of the industry. Since this is in essence a service industry performing an operation on materials owned by others, the raw material cost is naturally small, the only expenditures being for oil and similar incidental expenditures. According to the Federal Trade Commission, raw material cost in the commission-throwing concerns studied amounted to about 1 per cent of total manufacturing cost in the first half of 1935. Table XIV compares raw material cost with total manufacturing cost for this and other periods.

TABLE XIV

Per Cent Raw Material Cost is of the Total
Manufacturing Cost of 43 Commission-Throwsters,
January, 1933 - June, 1934

Six-Month Period	Total Manufacturing Cost	Raw Material Cost	
		Amount	Per Cent of Total
January-June, 1933	\$3,149,715	\$31,472	1.0
July-December, 1933	3,518,447	47,458	1.3
January-June, 1934	3,393,714	64,264	1.9

Source: Federal Trade Commission, Textile Report, Part IV,
Silk and Rayon Industry.

Available Supply of Raw Materials

The amount of silk and rayon thrown depends upon the demand for fabrics requiring these yarns. The available supply of silk and rayon combined that could be thrown if a demand existed is at least five times the amount now being thrown. The total available supply of silk, as roughly shown by imports, amounted to about 87,000,000 pounds 1/ for 1929, of which 22,000,000 pounds 2/ were consumed in that year. In the same year 131,300,000 pounds 2/ of rayon were consumed. Since rayon is a synthetic product, more could readily have been produced if conditions had warranted.

1/ Bureau of Foreign and Domestic Commerce, Foreign Commerce and Navigation.

2/ Textile Organon, February 1935.

CHAPTER IV

PRODUCTION AND DISTRIBUTION

Total Production

Data concerning the total volume of production in the Throwing Industry are not available. To obtain such a total, data covering all the silk and rayon thrown in the three following groups are necessary; namely, (1) amount thrown on commission; (2) amount thrown for sale; and, (3) amount thrown on own account. Bureau of Census data for silk and rayon thrown on own account have not been gathered. Code Authority figures, on the other hand, which do include this category do not include any yarn thrown by those manufacturers who considered themselves under the Cotton Textile Code rather than the Throwing Code.

Table XV shows the total volume of rayon and silk thrown on commission for the years 1929, 1931, 1933 and 1934.

TABLE XV

Volume of Rayon and Silk Thrown on Commission

Year	Number of Pounds
1929	42,942,000
1931	39,159,000
1933	43,049,000
1934	45,107,010

Source: Census of Manufactures, "Silk and Rayon Goods;" establishments whose annual production is less than \$5,000 are excluded. 1934 data from Code Administration Committee.

Principal Products

The principal products of the Throwing Industry are organzine, tram and crepe twist yarns. Tram is the common twist ordinarily given when silk yarn is thrown. It consists of five turns per inch. Organzine is a compensating twist in which the thread is first twisted to the right and then twisted to the left, usually 16 turns to the right and 14 turns to the left. A crepe twist has a very high number of turns - from 58 to 62 per inch - either to the right or to the left.

Table XVI shows a product breakdown of the volume and value of silk thrown for sale and of the silk and rayon thrown on commission, for the years 1929, 1931, and 1933.

From this table it is evident that tram and crepe twist are of about equal importance, 13,024,000 pounds of tram and 10,646,000 pounds of crepe having been thrown on commission in 1933. Attention is called to the decreasing importance of organzine, the quantity thrown on commission having declined from 4,862,000 pounds in 1929 to 955,000 in 1933. Noteworthy is the increase in rayon thrown, the amount in 1933 having been nearly three times as great as that in either 1929 or 1931.

TABLE XVI

Volume and Value of Silk Thrown for Sale a/
and Silk and Rayon Thrown on Commission,
by Principal Products

Product	Quantity			Value		
	(Thousands of Pounds)			(Thousands of Dollars)		
	1929	1931	1933	1929	1931	1933
Silk thrown for sale						
U. S. Total	12,121	9,753	7,544	\$69,740	\$32,177	\$16,998
Organzine	698	792	290	4,431	2,845	848
Tram	8,556	6,301	4,879	47,023	21,381	10,889
Crepe twist	2,867	2,660	2,375	18,286	7,951	5,261
Silk thrown on commission						
U. S. Total	36,456	32,770	24,626	<u>b/</u>	<u>b/</u>	<u>b/</u>
Organzine	4,862	1,589	955	<u>b/</u>	<u>b/</u>	<u>b/</u>
Tram	14,910	12,826	13,025	<u>b/</u>	<u>b/</u>	<u>b/</u>
Crepe twist	16,684	18,355	10,646	<u>b/</u>	<u>b/</u>	<u>b/</u>
Rayon thrown on commission						
Grand total	6,486	6,389	18,423	<u>b/</u>	<u>b/</u>	<u>b/</u>
	55,063	48,912	50,593	-	-	-

Source: Census of Manufactures, "Silk and Rayon Goods" establishments whose annual production is less than \$5,000 are excluded.

a/ No data have been collected for silk or rayon thrown for consumption in these same establishments.

b/ Not called for on schedule.

Table XVII shows the total silk and rayon thrown under the Code according to the use later made of the yarn. By far the larger part of the silk thrown was subsequently used for knitting - presumably in the making of hosiery - while only a very small proportion of the rayon yarn was so used.

TABLE XVII

Total Silk and Rayon Thrown under the Throwing Code,
by Principal Uses, 1934 a/

Product	Bales	Pounds
Total silk thrown	232,598	31,400,730
Silk for knitting	143,554	19,379,790
Silk for weaving	89,044	12,020,940
Total rayon thrown	101,528	13,706,280
Rayon for knitting	3,687	497,745
Rayon for weaving	97,841	13,208,535
Grand total, silk and rayon thrown	334,126	45,107,010

(Cont'd on next page)

TABLE XVII (Cont'd).

Source: Code Administration Committee Bulletins, Nos. 44 and 50.

- a/ Actual production for 50 weeks. Due to the jurisdictional dispute already referred to, rayon thrown by the members of the National Rayon Weavers Association was not reported to the Code Authority for the Throwing Industry

Geographical Distribution

Table XVIII shows a breakdown of silk thrown for sale and of silk and rayon thrown on commission in 1929 according to important producing areas. Pennsylvania is by far the most important, producing 26,707,761 pounds. New York and New Jersey are the next important areas producing 3,348,647 and 2,390,040 pounds, respectively.

TABLE XVIII

Volume of Silk Thrown for Sale and Silk and Rayon Thrown
on Commission, by Principal Producing States, 1929
(In thousand pounds)

State	Total	Organzine	Tram	Hard or Crepe Twist
Silk thrown for sale				
U. S. Total	12,121	698	8,556	2,867
Silk thrown on commission				
U. S. Total	36,457	4,862	14,910	16,685
New Jersey	2,390	410	610	1,371
New York	3,349	674	1,833	842
Pennsylvania	26,708	3,549	10,108	13,050
Other States	4,010	229	2,359	1,422
Rayon thrown on commission				
U. S. Total	6,486	-	-	-
New Jersey	324	-	-	-
Pennsylvania	4,800	-	-	-
Other States	1,362	-	-	-
Grand Total	55,064	5,560	23,466	19,552

Source: Census of Manufactures, "Silk and Rayon Goods;" establishments whose annual production is less than 5,000 are excluded.

CHAPTER V

TRADE PRACTICES

Pre-Code Unfair Practices

Fair trade practices are difficult to define in any open and freely competitive market. Methods and practices that may be considered unfair by one manufacturer may be considered perfectly ethical by another. Since the Throwing Industry is engaged, in the main, in the processing of materials belonging to others, and thus has little or no part in the distribution of products, opportunities for unfair trade practices are not so great as in other industries.

The outstanding unfair practice in the Throwing Industry was that of destructive price competition. This evil, which was quite widespread, was made possible by the relation of labor cost to total cost of manufacture. Since wages constitute the greatest part of the total expense of manufacture, it follows that the throwster who paid the lowest wages was able to quote the lowest price. Throwsters located in areas where low wages were the standard were at an advantage over those located in high wage areas. Not only was this price competition possible between wage areas but within a given area the unscrupulous throwster found he could decrease his price by decreasing wage rates.

A. Coradi,
Schwarzenbach Huber Company,
498 7th Avenue,
New York, New York.

R. K. Laros, and A. H. Hueller,
R. K. Laros Silk Company,
Bethlehem,
Pennsylvania.

James Simpson,
Columbia Silk Throwing Company,
Bloomsburg,
Pennsylvania.

Stanley Hunt, (Statistician)
Tubize Chatellion Corporation,
2 Park Avenue,
New York, New York.

Paul Hemmerich,
Duffy Silk Company,
Buffalo, New York.

D. E. Douty,
United States Testing Company,
Hoboken,
New Jersey.

CHAPTER VI

GENERAL INFORMATION

Advantages of the Code

The labor-cost floor created by the Code was its greatest achievement. The minimum wage of \$15 per week helped to decrease price-cutting and to restore confidence.

The effect of the minimum wage was endangered however, by the fact that the National Rayon Weavers refused to recognize the Throwing Code and operated under the Cotton Textile Code which had a minimum wage of \$12 per week. This problem might ultimately have brought about a complete breakdown of the Throwing Code unless steps were taken to make the minimum wage for the two Codes identical.

Trade Association Activity

The Throwsters Research Institute was organized in January of 1932 to promote cooperative effort. Its functions are to promote trade research, conduct experiments with the view of improving methods of production, collect statistics, and try to establish standards of quality. The Association was very active in obtaining the Code and in its administration after it was obtained.

List of Experts

Henry J. Tynan,
Tynan Throwing Company,
Paterson, New Jersey.

George Friedlander,
Duplan Silk Company,
1450 Broadway,
New York, New York.

W. R. Rossmassler,
Sauquoit Silk Manufacturing Company,
40 East 34th Street,
New York, New York.

Dean Hill,
Mercerizers Association of America,
468 4th Avenue,
New York, New York.

Ward Cheney,
Cheney Brothers,
179 Madison Avenue,
New York, New York.

